

AMORTIZATION OF EMERGENCY FACILITIES

DISSERTATION

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FRED JACK MUELLER, B. A., M. A.

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Approved by:


Adviser
Department of Business
Organization

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CHAPTER I

INTRODUCTION

The outbreak of a war or a major defense emergency always creates an urgent demand for the expansion of productive facilities far beyond the levels required to meet peacetime needs. The goal of such expansion is to increase the capacity for military products, but it is impossible to reach this goal without a coincidental expansion of many other types of capacity. In modern warfare, moreover, it is difficult to distinguish between what is war material and what is strictly civilian material. The inevitable result is an expansion program of tremendous range and diversity.

Such a program necessarily raises many problems which must be surmounted if the goals are to be accomplished. Much of the capacity created may have no use in a peacetime economy. Much more may be in excess of the needs of the economy at the end of the emergency. Many times the objectives of the program will be lost from view in the struggle among the various interests involved. Finally, the problem of who will build and own the expanded facilities must be solved.

Ownership of Emergency Facilities

This question almost always arises with such a program: What part of the expanded capacity should be owned by the federal govern-

ment and what part should be owned by private enterprise? The answer is not easy for there are many factors to consider. In some countries, the question would not be important but the general idea of government ownership in areas customarily reserved for private enterprise has almost always been repugnant in the United States.

Probably the most important factor to consider is the prospective post-emergency use of the new facilities. In a general war emergency expansion program the various projects would cover the entire economic spectrum. Some would be highly specialized and designed for the production of purely military items. Others, though designed for military production originally, could be converted to the production of civilian type goods. Still others would be in areas representing normal commercial type capacity from the very beginning.

Criteria for government ownership. As a general rule, subject to exceptions, government ownership would be indicated in any area of highly specialized capacity designed for purely military products which cannot be converted to peacetime uses. In addition, there would be other circumstances requiring some, if not all, governmental ownership: (1) where the needed expansion is far in excess of a normal peacetime economy; (2) where the expanded capacity is intended to be held in a non-operating "stockpile" or "stand-by" reserve at the end of the emergency; and (3) where private enterprise is unable or unwilling, with reasonable incentive, to undertake the project.

Conversely, the above criteria presumes other circumstances that would indicate ownership by private industry. Private ownership is generally indicated: (1) where the new capacity, though designed for producing military items, may be converted to civilian production at a reasonable cost; (2) where expansion is in areas representing ordinary commercial capacity, provided the expansion does not supply capacity far in excess of that required by post-emergency needs; and (3) where the increased capacity must necessarily be mixed with other privately owned capacity.¹

Government ownership in the past. It is interesting to examine the role of the government in the three major defense build-ups of the present century. There are no adequate statistics available for World War I. However, judging from the relatively small amounts of amortization granted to private industry to cover losses on emergency facilities, it appears that the government provided over half of all emergency facilities constructed.² During World War II, the government spent roughly three times as much as private industry for emergency facilities.³ In the Korean emergency, the government

¹George Terborgh, Amortization of Defense Facilities (Chicago: Machinery and Allied Products Institute, 1952), p. 12.

²U. S., Congress, Senate, Report of the Special Committee to Investigate the Bureau of Internal Revenue, 69th Cong., 1926, Report No. 27, Vol. I, p. 133.

³WPB Facilities Branch, Facilities Financed with Public Funds to June, 1945 (Washington: WPB, August 31, 1945), p. 12.

was a heavy buyer of certain types of facilities, particularly machine tools, but confined most of its plant construction to the fields of airplane fabrication and atomic energy. It is expected that this restriction of construction activity will continue.

Disadvantages of government ownership. There would be many complaints, especially in a "cold-war" emergency, if the government were to engage in widespread construction and manufacturing. Construction by the government and leasing the facilities to private industry is, in general, highly unsatisfactory and inefficient. However, the major disadvantage is confronted in the disposal problem which has followed every emergency.

Experience indicates that the sale of government property is a lengthy and tedious process. Moreover, conversion is a time-consuming process complicated by the delay in conversion because, until future ownership is established, no advance planning is done. This results in a loss of the productive capacity to the economy.

The losses through disposal are often considerable. The government is seldom in a strong bargaining position. Many of the expanded facilities are not independent, self-contained production units, but are entirely, or in part, a portion of an integrated operation with the remainder privately owned. Also, political implications, legal restraints, economic consequences, and interested "pressure" groups complicate the bargaining position. If past experience can serve as a guide, the government's probable realization from the post-emergency sale of productive facilities is very low. The record

suggests that the government should expect to recover only about one quarter of the cost of the facilities at the time of disposal. This says nothing of the actual costs involved in disposal, which can be very substantial.⁴

The above, which does not include cost of managing and operating the facilities, results in an increased burden on the taxpayer, and gives some indication of what the government could afford to pay private industry to own the facilities and still result in considerable savings. It may be concluded that government ownership of productive facilities destined for private ownership after the emergency is generally uneconomical. Therefore, every measure should be explored and possibly employed to induce private investment in those facilities from the very beginning.

Motivation needed to attract capital. There can be little doubt that American industry has responded quickly in the past to the demands of a "shooting-war" emergency. However, in future defense emergencies, it will no longer be possible to wait until the shooting starts to commence the economic mobilization. Instead it is necessary to provide the productive capacity in advance of its anticipated utilization. Many times in past emergencies industry has forgotten profits and even total return of costs in the desire to

⁴Testimony of Jess Larson, WAA Administrator, before the Senate Committee on Banking and Currency, Hearings on the Defense Production Act Amendments of 1951, p. 208.

be of service, but this must be recognized as the result of extraordinary circumstances. Profits rather than patriotism normally provide the incentive to invest.

The businessman compares expected revenues with the required investment. If the revenues are sufficient to recover the investment and to give a rate of profit suitable for the risks involved, the investment will be made. Without this expectation of adequate revenues the investment will not be made either in a peacetime economy or as a part of a defense build-up.

Special risks in emergency facilities. Three classes of emergency facilities were mentioned earlier as being particularly appropriate for private ownership: (1) where the new capacity may be converted to peacetime production; (2) expanded ordinary commercial capacity; and (3) where the increased capacity must be mixed with other privately owned capacity. These groups are characterized by special investment risks, and the attractiveness of the investment will depend on the ability of private industry to meet these risks. It must be emphasized that these special risks are not caused by private ownership but are inherent in the nature of the facilities themselves. The risks are present even under governmental ownership except that the government is not faced with the necessity of having a self-liquidating and profit-making project or of going out of business.

The special risks in specialized facilities for producing military items, but which are convertible to peacetime uses, are considered first. The first risk is the uncertainty of the duration of the emergency itself. There is also no certainty, because of the effect of technological change on military needs and productive facilities, that the facility can be used throughout the period of the emergency. Any shift in military needs might abruptly leave the producer high and dry without an opportunity to recover his investment. This gamble is diminished somewhat if the facility has high convertible value, but even then the investor is confronted with a maze of uncertainties. The time of availability for conversion is uncertain; the general state of the economy at the time of conversion is uncertain; the cost of conversion is but an estimate as also would be the cost of alternative new facilities or the comparative efficiency of a converted plant vs. a new plant.

It would seem, at first glance, that these problems would not affect an investment to expand facilities for the production of ordinary articles of commerce. However, the answer is again not that simple. There would be no conversion problems it is true, but the danger of overcapacity is very real. This expansion is not for prospective needs of a normal economy. If it were, the expansion would be normal and would be performed without the need for prompting from the government.

The same risks accompany the third group. In addition there are those additions to capacity which are designed for purely military products and lack conversion possibilities. The revenues from emergency orders alone must be sufficient to recover cost if not to produce a profit.

Ways to attract private capital. Since the ownership of emergency facilities entails exceptional risk, some kind of special protection will be required if private investment in adequate amounts is to be forthcoming. Markets guaranteed by the government so as to assure recovery of the investment and a fair profit would attract private capital. However, to have the government assume this role would nullify many of the advantages of private investment.

The other alternative is to provide some method whereby the investment could be recovered quickly out of revenues produced during the emergency. The investment in emergency facilities is even less inviting when high taxes syphon off 52 per cent and more of corporation profits. The high taxes are particularly discouraging when the total amount of profit cannot be determined until the investment has been recovered and there is danger that the investment may never be recovered.

One device used during World War II provided for the installment purchase by the government of facilities privately acquired with the title passing to the government on the completion of payment. Another device consisted of inserting in the supply contracts with the

government provisions for the full amortization of the facilities from the proceeds of the contract (contract termination agreements). The third type of protection is the acceleration of tax-free capital recovery allowances. This device has been used in one form or another during each of the major defense build-ups of the century. Since this type of protective device has been the one most frequently employed in the present emergency, nothing further will be said of the others.

Purpose of the Study

This study intends to examine the operations and the effects of the tax-free capital recovery allowance program to determine if the program has been successful in meeting its objectives, and if it should be continued, expanded, or discontinued.

Definition of the term. The tax-free capital recovery allowance program has been referred to in many terms, namely: amortization of emergency facilities, rapid tax-amortization, rapid amortization, accelerated depreciation, fast depreciation, certificate of necessity program, and the more graphic term "fast write-off." Amortization of emergency facilities is the most appropriate title for the program, but when it is more convenient rapid amortization or fast write-off will be used throughout the study.

Rapid amortization refers to the writing-off of eligible capital investments over a period of five years for tax purposes

instead of over normal service life of the facilities. The taxpayer may, however, elect to change to normal depreciation rates before the end of the five-year period. The right to use rapid amortization is provided under Section 168 of the Internal Revenue Code of 1954.

Organization and scope. This study is divided into four major phases.

The concepts of normal depreciation are reviewed in the first phase. Rapid amortization is not granted in addition to normal depreciation, but is used in lieu of the longer period. Therefore, to better understand the effects of rapid amortization, it is necessary to understand the meaning, purpose, significance, and mechanics of normal depreciation.

The second phase recognizes the fact that, while personal experience may be the best teacher, much useful information may be gleaned from what has gone before. The principle of rapid amortization is not new, although the techniques used may be. Chapter III is devoted to a brief history of previous programs.

The program initiated during the Korean emergency, its objectives and means of implementation, is examined in the third phase. The period of time covered by this study is from 1950 through 1955.

The final phase analyses the effects the present (Korean) rapid amortization program has had on the economy. A study involving every expansion goal set by the certifying authorities (there have

been 228 goals established to date) would be prohibitive from the standpoint of time and space, therefore, the steel industry has been selected as an appropriate industry through which to study the effect of the program. It is acknowledged that the steel industry, or any other single industry, may not be truly representative of the American economy; but the general effects and problems would be essentially the same for all industries.

PREVIEW

CHAPTER II

CONCEPTS OF NORMAL DEPRECIATION

The time ultimately comes when plant and equipment items, other than land, can no longer be used economically by a business and must be retired. This time may be postponed by the manner of use, maintenance, or care, but can never be prevented. A decline in the value of the asset marks the progress toward retirement. The costs that are identified with the decline in value of such assets must be allocated to those periods that benefit from the asset's use if the profits for the period are to be reasonably accurate. This allocation is depreciation, and has long been accepted in accounting and economic theory.

Unfortunately, value is a word with many meanings and the lack of a precise meaning has led to differences as to the meaning and purpose of depreciation.

Depreciation to the accountant. The accountant assigns a relatively narrow meaning to depreciation. It refers only to the diminishing of the book value of buildings or equipment. This value is normally accepted as being only invested cost, and therefore, depreciation is the accounting for the consumption or the wasting of invested capital. This meaning is consistent with the financial-condition or going-concern approach to depreciation, an ingenious invention to attempt to explain and justify the obvious fact that book

values are often not even close to the market value of the property. The going-concern value is equivalent to the unamortized cost and disregards the effect of changes in market value. The emphasis is on the apportioning of the cost of facilities and not on the ultimate need for replacement.¹

Depreciation to the economist. The economist is concerned with the nature and cost of the future replacements necessary to enable the business to preserve intact the earning power of its instruments of production. It is replacement rather than original cost which is alone significant.² To accomplish the economist's purpose, depreciation must necessarily consider the changing price levels, changing technology, and changing competitive position of the firm in addition to the factors considered by the accountant. The amount to be deducted from revenues over the life of the property should be equal to the cost of replacement. The emphasis is thus on the integrity of productive capital and not on dollar capital.

Depreciation to the businessman. The businessman is often willing to accept any and many meanings of depreciation. The business executive recognizes the fact that replacement expenditures in the

¹ Carl T. Devine, Handbook of Modern Accounting Theory, Morton Backer editor (New York: Prentice-Hall, 1956), p. 333.

² Arthur Stone Dewing, The Financial Policy of Corporations (New York: Ronald Press, 1953), I, p. 546.

future are uncertain, but at the same time feels that each accounting period should bear its proportional share of the cost of replacing existing equipment with new property. For him the going-concern concept is the concept of a business concern with a life span in excess of that of the existing physical assets.

It is natural that the businessman tends to judge most transactions from the viewpoint of their effect on profits. Thus, it is not unusual for some businessmen to view depreciation as being directly related to revenues--an extension of matching costs with revenues--and to tie the expiration of plant facilities directly to the volume of the revenue stream produced. The usual result is that depreciation is taken, or not taken, almost at will.³ Also, the deductible feature of depreciation for income tax purposes is given the greatest emphasis. Any concept, or method, of depreciation which would maximize this deduction--in the long run--will meet with favor.

Factors Causing Depreciation

The principal conditions which limit the economic life of productive facilities are thereby cause depreciation are:⁴

³ DeVine, Handbook of Modern Accounting Theory, p. 349.

⁴ William Paton (ed.), Accountant's Handbook (3rd edition, New York: Ronald Press, 1947), p. 720.

1. Ordinary "wear and tear" in use.
2. Unusual deterioration or damage.
3. Exhaustion.
4. Limited possibility of use.
5. Inadequacy.
6. Obsolescence.
7. Cessation of demand.

Physical causes. The first three of the above factors are sometimes referred to as the physical causes of depreciation, and affect the physical status of the assets. They refer to all deterioration due to use, exposure, damage, age, and destruction which results in the loss of productive powers.

Functional causes. The last three factors are the functional causes of depreciation that reflect declines in value due to economic conditions. This decline may or may not parallel the decline due to physical wearing out. The fifth and sixth factors embrace the effect of changing methods of operations, inventions, and technical developments which make the assets unsuitable for continued service. These have been major factors bringing about the retirement of many types of buildings and equipment. The seventh factor, cessation of demand, refers to the falling off in the market's demand for a particular product.

Limited possibility of use. The fourth factor is not readily attached to either of the above groups. It refers to a condition recognized at the outset as inherent to the situation. The condition is something external to the physical character of the asset itself. Typical examples of this are improvements erected by a lessee

and specialized war facilities. The lessee depreciates fully the assets erected on leased land over the period of the lease if the physical life of the assets exceeds the period of the lease.

Specialized war facilities are depreciated over the estimated duration of the war emergency although the facilities may be in usable condition at the end of the emergency.⁵

Purposes and Significance

Purposes of depreciation. The primary purpose of depreciation is the systematic assignment of the cost of plant facilities to operations, and its principal objective the more realistic portrayal of profits. The secondary purpose is to show the amount of unamortized cost remaining to be absorbed by future operations.

There is a very common tendency to consider the primary purpose of depreciation to be a means to finance replacements; to provide a fund with which to replace plant assets. There is no intention on the part of this writer to underestimate the importance of replacement funds; however, this is a function of the general financial management, not of depreciation. Revenues provide the funds. Depreciation charges those revenues with the cost of plant services used up in the production of those revenues. The management may elect to hold the deducted amounts as a fund designed to replace the assets used up,

⁵ Ibid., pp. 720-23.

but, as is more commonly the case, the money is reinvested in other assets. During inflationary periods the inadequacy of depreciation allowances to provide replacement funds becomes a matter of serious concern.

Significance of depreciation. The depreciation deduction does not differ, fundamentally, from any other operating expense. To carry on its activities the business concern requires the services of a plant as well as current labor and materials. There has been a tendency among corporate managements to quote profits before depreciation. In the income statements of these companies depreciation seems to be an optional charge--something to be taken or not taken--which assumes importance only if the profits are large enough. To exclude depreciation merely because it does not involve an out-of-the-pocket cost seems as illogical as to ignore the expense involved if a worker is paid his salary in advance of the services rendered. It might well be that the principal significance of depreciation is the recognition of it as a cost of doing business. Profits stated before an adequate provision is made for the recovery of capital invested in plant facilities is an illusion. On the other hand, if too great a charge is made, the profits for that period have been understated.⁶

⁶ William A. Paton, Advanced Accounting (New York: MacMillan, 1947), p. 721.

Of secondary significance is the effect of depreciation on the statement of financial position. Depreciation is reflected in the role of a valuation account; a method of showing what invested costs have not yet been amortized. This unamortized cost may not be the same as the market value of the assets reported.

Occasionally one encounters the statement that, under certain circumstances, dividends are paid from the Provision for Depreciation. Such a statement is technically false and entirely misleading. Sometimes, in periods of low profits, dividends may be paid in excess of current earnings, but surplus is appropriated for the dividends which are paid in cash. This cash normally is drawn from current receipts in excess of current expenditures, and a part of such cash may be interpreted as representing the amount of plant cost recovered during the period. The Provision for Depreciation, however, has not been affected by the dividend action.

The use of depreciation accounting tends to induce a more conservative dividend policy, although there may be cases where dividends are paid when the company is experiencing operating losses. In this way funds tend to be retained in the business which otherwise might be disbursed as income with a resulting impairment of productive capital. The accumulation of surplus could accomplish the same thing, but surplus represents a legal basis for dividends. This effect is not peculiar to depreciation; all costs are in the same position in this connection. Any neglect of an expense results in an

overstatement of income and therefore encourages distribution of capital to the stockholders.⁷

Apportionment of Depreciation

In a going-concern there is no such thing as a loss of capital. The entire cost of a depreciable asset must be included in the cost of production during its useful life. The difficulty arises in accepting or devising a method of apportioning the cost.

A building or a machine is normally used in its entirety to give off a series of services throughout its useful life. The physical condition of the asset is affected by this use, but no part of the material lost is embodied in the product produced. It is this characteristic of depreciable assets which makes their treatment and valuation so difficult.

Selection of the depreciable unit. Two extreme views of the depreciable unit are found in practice: (1) the depreciable unit is the plant as a whole, and (2) each element of the plant which is subject to separate renewal should be separately depreciated. Somewhere between these two extremes is a workable procedure for every situation. The plant must be divided into main classifications which can be expected to be renewed separately and which represent a sub-

⁷Paton, Accountant's Handbook, p. 749.